

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph beginning on page 11, line 9 with the following amended paragraph:

The orifices 152 may be a series of holes as shown in FIG. ~~[[13]]~~ 12, or may take the form of an elongated slot, as shown in FIG. ~~[[14]]~~ 13. The size, shape, number and angle of the orifices 152 can be modified in order to suit a particular application, for example the orifices 152 can be angled in a downstream direction (pitch angle), or the array of orifices 152 can be angled in the plane of the orifice plate 144 (yaw angle).

Please replace paragraph beginning on page 12, line 9 with the following amended paragraph:

In operation, voltage from the electric source is applied to the side plates 154 so as to cause the plates to deflect in opposite directions to each other. That is, when the left-hand side plate 154 illustrated in FIG. 9 is deflected convexly to the right, the right-hand side plate 154 is deflected convexly to the left. This simultaneous deflection reduces the volume of the fluid cavity 158 and causes fluid to be expelled through the discharge conduit 150 and then from the orifice 152. When voltage of opposite polarity is applied, the side plates deflect in the opposite direction. This action increases the volume of the fluid cavity 158 and causes a decreased partial pressure in the fluid cavity 158, which in turn causes fluid to enter the fluid cavity 158 through the orifice 152. Since each side plate 154 is a bimorph piezoelectric structure, and there are two side plates, this embodiment of the present invention has four times the capacity of a single piezoelectric device of the same overall dimensions. Fluid can be expelled from the orifice 152 in a multitude of directions by simply changing the orientation and/or configuration of the plates, the flexible hinge or the orifice. Furthermore, the synthetic jet actuator 140 can be used to directly cool an LED die that does not include a heat sink or a larger heat dissipating structure.